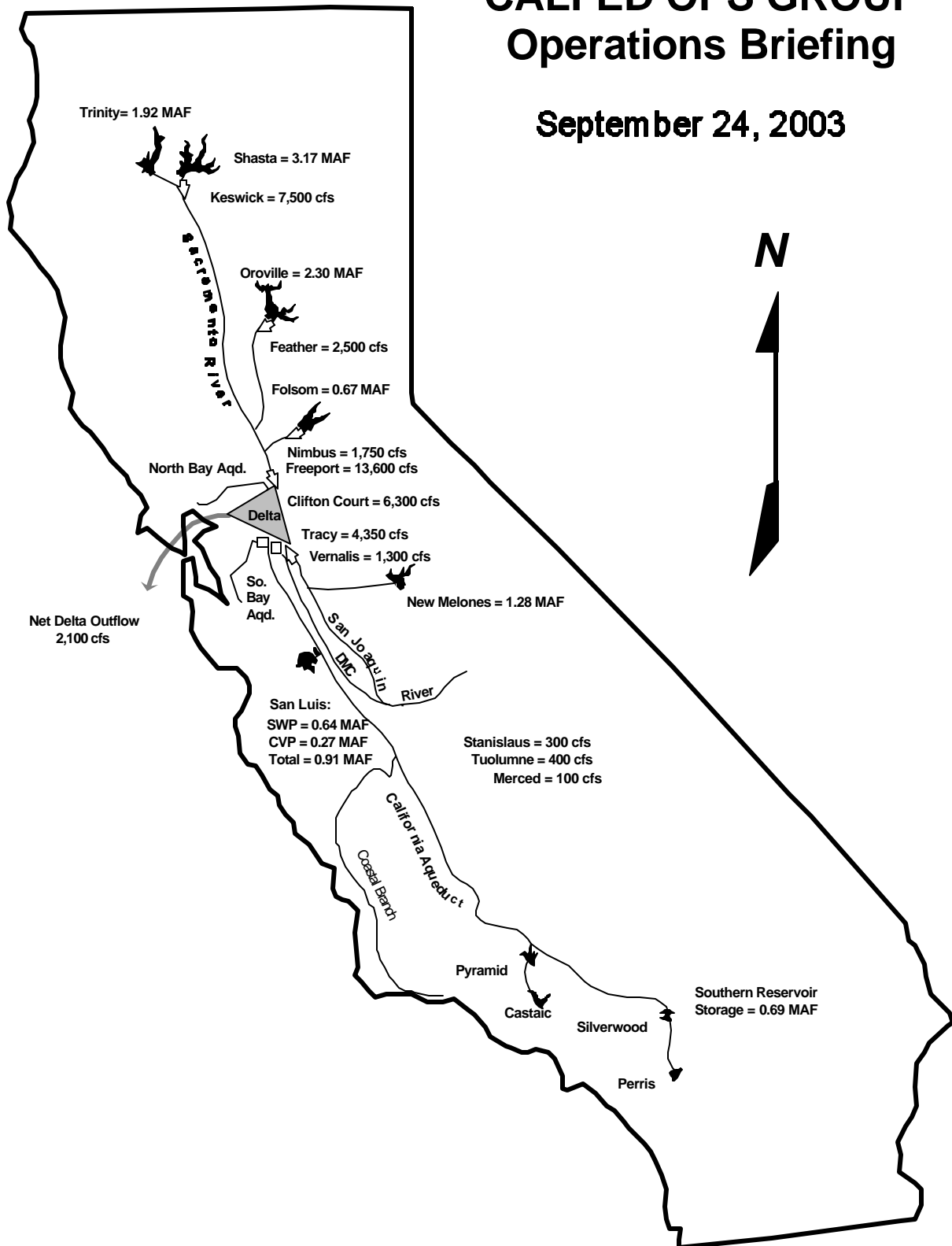


CALFED OPS GROUP Operations Briefing

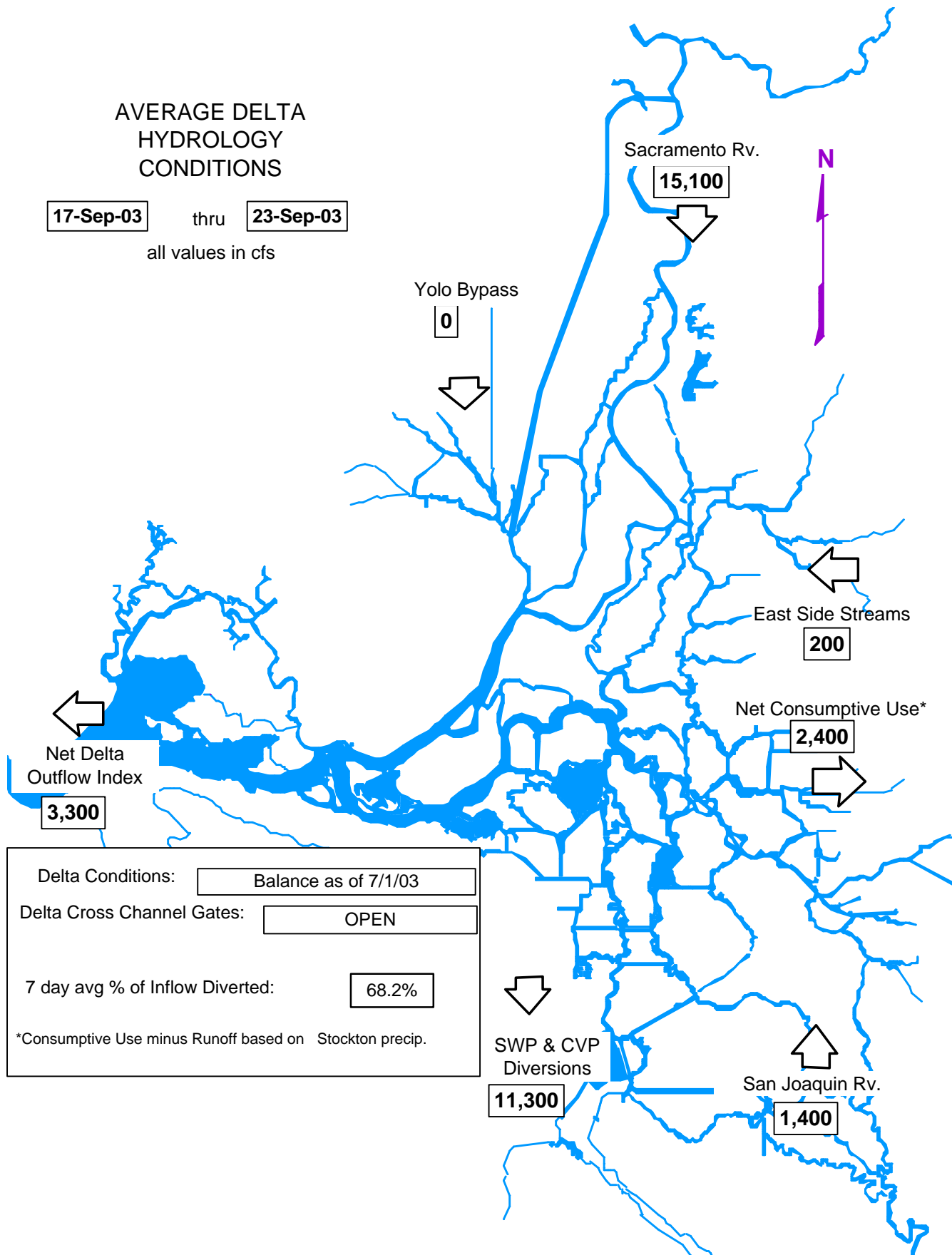
September 24, 2003



AVERAGE DELTA
HYDROLOGY
CONDITIONS

17-Sep-03 thru 23-Sep-03

all values in cfs



AVERAGE DELTA WATER QUALITY CONDITIONS

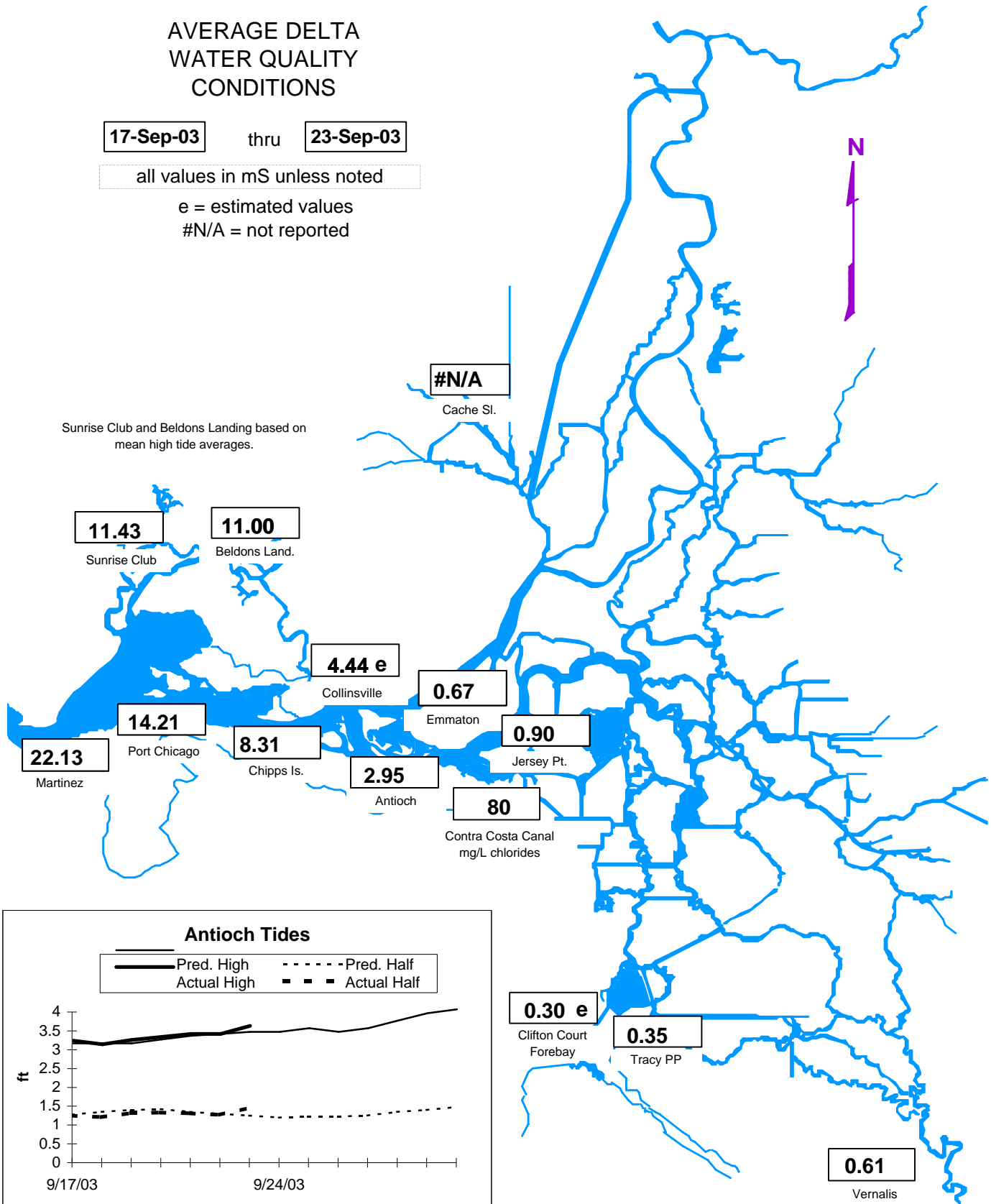
17-Sep-03 thru **23-Sep-03**

all values in mS unless noted

e = estimated values

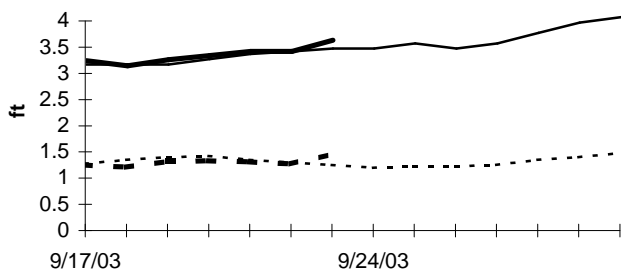
#N/A = not reported

Sunrise Club and Beldons Landing based on mean high tide averages.



Antioch Tides

— Pred. High - - - - - Pred. Half
— Actual High ■ ■ ■ Actual Half



DRAFT

Bay-Delta Standards

Contained in D-1641

DRAFT

CRITERIA	Sep 03	Oct 03	Nov 03
FLOW/OPERATIONAL			
<ul style="list-style-type: none"> Fish and Wildlife <ul style="list-style-type: none"> SWP/CVP Export Limits Export/Inflow Ratio Minimum Outflow - mon. <ul style="list-style-type: none"> - 7 day avg. Striped Bass Survival Suisun Marsh Habitat Protection Outflow, X2 River Flows: <ul style="list-style-type: none"> @ Rio Vista - min. mon. avg. <ul style="list-style-type: none"> - 7 day average @ Vernalis: Base -min. mon. avg. <ul style="list-style-type: none"> - 7 day average Pulse Delta Cross Channel Gates 			
		65%	
	3000 cfs	4000 cfs	4500 cfs
	2000 cfs	3000 cfs	3500 cfs
	3000 cfs	4000 cfs	4500 cfs
	2000 cfs	3000 cfs	3500 cfs
		*1000 cfs	
		* Up to an additional 28 TAF	Conditional
WATER QUALITY STANDARDS			
<ul style="list-style-type: none"> Municipal and Industrial <ul style="list-style-type: none"> All Export Locations 			
		<= 250 mg/l Cl	
<ul style="list-style-type: none"> Agriculture <ul style="list-style-type: none"> Southern Delta 			
		30-day running average EC <= 1.0 mS	
<ul style="list-style-type: none"> Fish and Wildlife <ul style="list-style-type: none"> San Joaquin River Salinity Suisun Marsh Salinity 			
		19 mS/cm	15.5 mS/cm for Eastern / 16.5 for Western Marsh stations

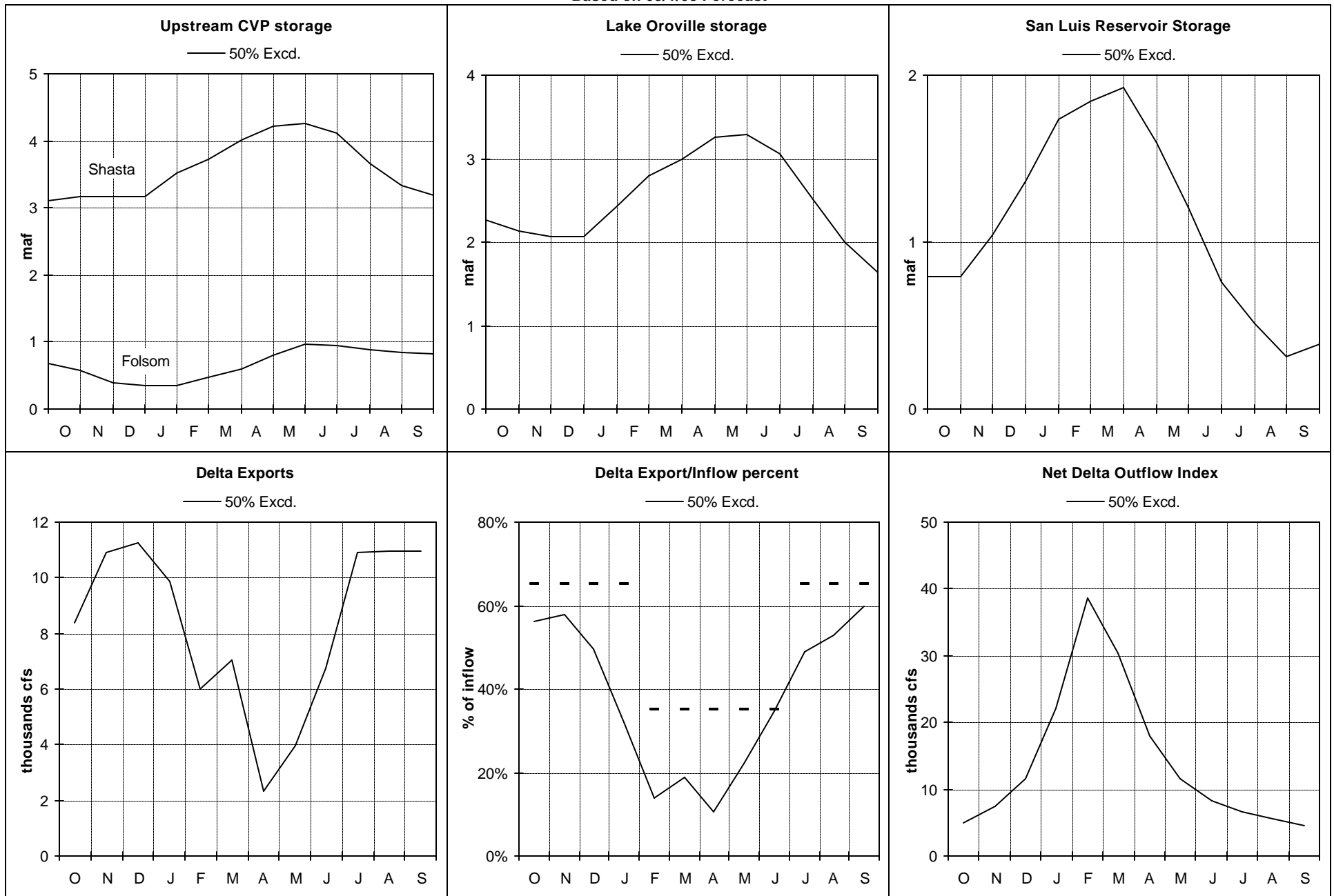
Water Year Classification: (May 1 forecast)

SRI (40-30-30 @ 50%) = 8.0 (Above Normal)

SJV (60-20-20 @75%) = 2.7 (Below Normal)

SWP & CVP WY 2004 Forecasted Operations.

Based on 09/1/03 Forecast



Flows are monthly averages.

WY 2002/2003 EWA Accounting Summary
Based upon July Operations Study - 50% Exceedance Hydrology
Assumptions: SWP Allocation - 90%; NOD Purchases - 69.9 TAF; SOD Purchases - 145 TAF

EWA NOD and SOD Storage Acquisitions (+) and Releases (-)																	
1	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
NOD (Oroville) ⁰	20 *			5 ⁵					-20 ¹³	-12 ^{5,14}	8 ¹⁵	1	-9				-6
NOD (non-Oroville)	7 ³	-1.6 ³	-0.7 ³	-4.6 ³					65 ⁶		-19 ¹⁵	-31 ⁶	-15 ⁶				0
SOD (KCWA)	37 ⁴				-12 ⁴	-15 ⁴	-9 ⁴										0
SOD (MWD)					12 ⁴	15 ⁴	2		-30 ⁴								0
																	3 -6

EWA Asset Acquisition in SWP San Luis ¹																	
2	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
E/I Relaxation							35			31 ¹⁴							66
EWA share of SWP gain							19										19
Project Pumping to reduce EWA debt																	0
JPOD using excess flows																	0
JPOD using NOD storage																	0
Xfer NOD - Sacramento River ²											8 ¹⁵	21 ⁶	16 ⁶				46
Xfer NOD - San Joaquin River ²																	0
SOD SWP Surface/GW Purchases							7 ⁴		30 ⁴	36 ⁷	36 ⁷	36 ⁷	17 ⁷				162
Exchange of EWA assets																	0
Groundwater pumping SOD																	0
Exchange from CVP to SWP in SL																	0
Total Monthly EWA Assets		0	0	0	0	0	62	0	30	67	45	58	32	0	0	0	293

EWA Asset Acquisition in CVP San Luis																	
3	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
E/I Relaxation																	0
Project Pumping to reduce EWA debt							6										6
JPOD using excess flows																	0
JPOD using NOD storage													6 ⁶				12
Xfer NOD - Sacramento River ²				0.5 ³													0
Xfer NOD - San Joaquin River ²																	0
SOD CVP Surface/GW purchases													20 ⁷				20
Exchange of EWA assets																	0
Groundwater pumping																	0
Exchange from SWP to CVP in SL																	0
Total Monthly EWA Assets	0	0	0	0	0	0	6	0	0	0	0	0	26	0	0	0	32

EWA Expenditures at the Export Pumps																	
4	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SWP export cuts				-32 ⁸	-89 ⁹			-19 ¹⁰	-182 ¹¹								-322
CVP export cuts									-26 ¹¹								-26
Total Expenditures	0	0	0	-32	-89	0	0	-19	-208	0	0	0	0	0	0	0	-348

EWA End-of-Month Incremental Storage Changes																	
5	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SWP in SL (without Source Shift)	11	0	0	-32	-89	0	62	-19	-152	67	45	58	32	0	0	0	-18
CVP in SL	-6	0	0	0	0	0	6	0	-26	0	0	0	26	0	0	0	0
NOD Storage (SOD equivalent) ¹²	21	-1	-1	0	0	0	0	0	36	-10	-8	-24	-19	0	0	0	-5
SOD Storage (non-S.L.)	37	0	0	0	0	0	-7	0	-30	0	0	0	0	0	0	0	0
Total Incremental Storage Changes	63	-1	-1	-31	-89	0	60	-19	-172	57	36	34	39	0	0	0	-23

EWA End-of-Month Storage Balance at Various Sites																
6	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SWP in SL (without Source Shift)	11	11	11	-21	-111	-111	-49	-68	-220	-153	-108	-51	-18	-18	-18	-18
CVP SL	-6	-6	-6	-6	-6	-6	0	0	-26	-26	-26	-26	0	0	0	0
NOD Storage (SOD equivalent) ¹²	21	20	20	20	20	20	20	20	56	46	38	14	-5	-5	-5	-5
SOD Storage (non-S.L.)	37	37	37	37	37	37	30	30	0	0	0	0	0	0	0	0
EWA Asset Balance	63	62	61	30	-59	-59	1	-18	-190	-133	-96	-63	-23	-23	-23	-23

San Luis Reservoir Storage Conditions																	
7	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Total Storage (base case) ¹⁶		645	783	1037	1554	1856	2007	1897	1686	1406	1052	715	664	644	894	1217	
Encroachment																	
Total Storage (EWA case)		650	788	1010	1438	1740	1958	1829	1440	1227	918	638	646	626	876	1199	
MWD Source Shifting																	
Storage (with MWD source shifting)		650	788	1010	1438	1740	1958	1829	1440	1227	918	638	646	626	876	1199	

⁰ 2002 NOD Purchases = 135(YCWA) + 10(SGA). 2003 NOD Purchases = 185(YCWA) + 10(OWID). YCWA has firm 55 taf; exercised option for an additional amount - 10 taf.

* The SWP was able to back 20 taf of water for the EWA into Lake Oroville between September 14 and October 6, 2002

(which includes a 20% carriage water loss). SOD equivalent = 16 taf (not a 1:1 Exchange).

¹ Aqueduct conveyance and evaporation losses are not included.

² Carriage water loss applies to water transfers from the Sacramento River; a 10% conveyance loss applies to water transfers from the San Joaquin River.
A carriage water loss of 20% was applied to the 2002 water transfers.

³ 2002 SGA Transfer (CVP place of use). The majority of this asset was used for instream flow benefits.

⁵ 2003 OWID Transfer (Joint place of use) ⁶ 2003 YCWA Transfer (Joint place of use)

⁸ About 32 taf was expended for the December portion of the 12/27/02 - 1/2/03 curtailment.

⁹ Of this amount, approximately 9.5 taf was expended for the 1/1-1/2/03 portion of the 12/31/02-1/2/03 curtailment; about 60 taf was expended for the 1/15-1/20/03 curtailment; about 20 taf was expended for the 1/25-1/28/03 curtailment.

¹⁰ The VAMP cost is estimated to be about 32 taf for the SWP and is based upon the 4/30 estimate of base flows.

¹¹ The cost for VAMP shoulders is about 169 taf for the SWP; and 26 taf for CVP.

¹² Default assumption for C/W is 20%. When NOD storage is released and pumped a post analysis will be performed to calculate actual C/W costs.

¹³ The SWP spilled ~ 20 taf of EWA water stored in Oroville during flood control operations.

¹⁴ E/I relaxation: ~22 taf of surplus Delta flow pumped June 16-23. ~9taf OWID and SWP water pumped June 29-30. Upstream 12taf (5taf OWID+7taf SWP) water released for 9 taf of export.

¹⁵ Early July, ~11 taf was released from Oroville with ~ 9 taf pumped at Banks utilizing the 500 cfs, thereby shifting EWA debt from State S.L. to Oroville. 7/14-7/31 18.9 of YCWA transfer "backed" into Oroville while approval of the water level response plan is still pending.

¹⁶ Based upon the 8/1/2003 DWR's 50% (50% Fall) allocation study.